

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A structured document processing system for processing a structured document that is structurally represented and contains one or more document parts, the structured document processing system comprising:
 - a processor;
 - rule providing means for providing ~~an extraction rule~~ a plurality of extraction rules to extract a document part, a repetitive duplication rule to duplicate a document part by a given number of times, or an insertion/substitution rule to insert or substitute a document part to a corresponding document part, the rule providing means embedding ~~the rule in a structured document~~ the plurality of rules in a plurality of structured documents containing the document part;
 - a processing invocation description analyzing means for analyzing processing invocation descriptions;
 - analyzing means for analyzing the structure of the structured ~~document~~ documents to generate ~~a parse tree~~ parse trees;
 - a plurality of rule separating means for separating the ~~rule~~ rules embedded in the structured ~~document~~ documents and the document part to retrieve the ~~rule~~ rules, based on the ~~parse tree~~ parse trees generated by the analyzing means;
 - document processing synthesizing means for synthesizing a document processing rule string based only on the rule embedded in ~~the~~ each structured document, the document processing description synthesizing means merging and sorting the extraction rule embedded in a first structured document and retrieved by the rule separating means, and the repetitive duplication rule and/or insertion/substitution rule embedded in a second structured

document and retrieved by the rule separating means from a second structured document in which the repetitive duplication rule and/or insertion/substitution rule is embedded, to synthesize a document processing rule string for processing the first and second structured documents;

extracting means for retrieving a first document part subject to the extraction rule from the first structured document;

repetitive duplication means for repeatedly duplicating a document part subject to the repetitive duplication rule and a rule provided to the document part by a given number of times;

an error notice document synthesizing means for synthesizing syntax errors of rules detected by the rule separating means for an error notice;

a processing invocation description synthesizing means for synthesizing the processing invocation descriptions and error notice for assessing an error notice page;

inserting/substituting means for inserting the first document part before or after a second document part subject to the insertion/substitution rule or substituting the first document part for the second document part; and

an interpreter for sequentially executing the document processing rule string and synthesizing document parts by using the extracting means, the repetitive duplication means, and/or the inserting/substituting means.

2. (Currently Amended) The structured document processing system according to claim 1, wherein:

~~the extraction rule is an~~rules are attribute extraction rule ~~that specifies~~rules that specify retrieval of an attribute of a document part;

the insertion/substitution rule is an attribute substitution rule that specifies substitution of an attribute of a document part;

the rule separating means ~~retrieves~~retrieve the attribute extraction ~~rule~~rules and attribute insertion/substitution rule from a structured document;

the inserting/substituting means is attribute substituting means for substituting an attribute of the first document part for an attributes of the second document part subject to the attribute substitution rule; and

the interpreter executes the document processing rule string synthesized by the document processing synthesizing means, extracts the attribute of a given node of the document part specified in the attribute extraction rules, and sets the extracted attribute in the given node of the document part specified in the attribute substitution rule.

3. (Previously Presented) The structured document processing system according to claim 2, wherein the attribute substituting means makes, in accordance with the attribute substitution rule, substitution of a string synthesized by combining an attribute value string set in advance in the document part and a string obtained from a state of the system.

4. (Currently Amended) The structured document processing system according to claim 1, wherein:

the extraction ~~rule includes~~rules include a path name;

each of the repetitive duplication rule and insertion/substitution rule includes a pattern expression;

the rule separating means ~~retrieves~~retrieve, from the structured document, the extraction ~~rule~~rules and the path ~~name~~names, or the repetitive duplication rule, the insertion/substitution rule, and the pattern expressions;

the repetitive duplication means performs pattern matching between the path name provided to the extracted document part and the pattern expression, and performs repetitive duplication by the number of document parts having a matching path name; and

the inserting/substituting means performs pattern matching between the path name provided to the extracted document part and the pattern expression, and inserts or substitutes a document part having a matching path name.

5. (Currently Amended) The structured document processing system according to claim 1, wherein the inserting/substituting means inserts or substitutes the extraction ~~rule~~rules provided to the document part retrieved by the extracting means.

6. (Currently Amended) The structured document processing system according to claim 5, wherein the inserting/substituting means, when inserting or substituting the extraction ~~rule~~rules provided to the document part retrieved by the extracting means, changes the path ~~name~~names included in the extraction ~~rule~~rules and then inserts or substitutes the extraction ~~rule~~rules.

7. (Currently Amended) A structured document processing system for processing a structured document containing one or more document parts and structurally represented, the processing being implemented by cooperative processing through computer communications on a distributed network system constituted of two or more networked computers, the structured document processing system comprising at least:

a file server that stores a structured document as a file of a predetermined format, and in response to the receipt of a file name, sends a corresponding file via the network; and

a structured document processing server that performs document processing for the file,

wherein the structured document processing server comprises:

input means for inputting and analyzing a processing invocation description containing the file name of a first structured document in which ~~an extraction rule~~a plurality of extraction rules specifying extraction of a document part ~~is~~are embedded and the file name

of a second structured document in which a repetitive duplication rule or insertion/substitution rule is embedded, sending the file name contained in the processing invocation description to the file server via the network, and inputting a file corresponding to the file name from the file server via the network;

a processing invocation description analyzing means for analyzing processing invocation descriptions;

document processing means for analyzing the first structured document and the second structured document to generate a parse tree, scanning the parse tree and separating the document part, the document processing means retrieving the extraction ~~rule~~rules embedded in the first structured document and the repetitive duplication or insertion/substitution rule from the second structured document and merging and sorting the rules to synthesize a document processing rule string based only on the extraction ~~rule~~rules embedded in the first structured document and the repetitive duplication instruction or insertion/substitution rule embedded in the second structured document, and executing the document processing rule string to synthesize a structured document;

an error notice document synthesizing means for synthesizing syntax errors of rules detected by the rule separating means for an error notice;

a processing invocation description synthesizing means for synthesizing the processing invocation descriptions and error notice for assessing an error notice page; and

output means for outputting the synthesized structured document or the document part obtained by the document processing means as a file of a given format via the network.

8. (Original) The structured document processing system according to claim 7, wherein:

the processing invocation description may define a distributed file name on the network in a format in which the server name of the structured document processing server is contained;

at least first and second structured document processing servers to process the structured document exist on the network;

in a first processing invocation description inputted to the first structured document processing server, file names of a first original document and/or first template subject to document processing are described in a format of a second processing invocation description containing the server name of the second structured document processing server; and

the first structured document processing server, in response to the input of the first processing invocation description, extracts the second processing invocation description described as the file names of the first original document and/or first template, sends it to the second structured document processing server via the network, receives a file containing a structured document or a document part outputted by the second structured document processing server invoking the second processing invocation description, via the network, and uses it as the first original document and/or first template.

9. (Original) The structured document processing system according to claim 8, wherein:

the second structured document processing server to input the second processing invocation description is configured on the same computer system as that of the first structured document processing server and does not require communications with the first structured document processing server via the network; and

the first structured document processing server has switching means for inputting, in place of the file containing a structured document or document parts, the structured document or document part, which is the product of processing by the second structured document processing server, as a parse tree.

10. (Original) The structured document processing system according to claim 7, further comprising:

holding means for holding a parse tree of an original document or template inputted from the file server in association with a file name or a processing invocation description; and

input means for inputting, instead of a structured document file corresponding to the file name from the file server, a corresponding parse tree from the holding means.

11. (Original) The structured document processing system according to claim 2, wherein:

the structured document processing system inputs a processing invocation description containing a file name of the first structured document in which the extraction instruction specifying the extraction of a document part is embedded, and a file name of the second structured document in which the repetitive duplication instruction or attribute substitution instruction is embedded; and

the attribute substituting means sets a string obtained by replacing part of the processing invocation description by an attribute string set in advance in the document part, as the attribute string of the document part.

12. (Currently Amended) A structured document processing system for processing a structured document that is structurally represented and contains one or more document parts, the system comprising:

a processor;

analyzing means for analyzing a structure of the structured document to generate a parse tree;

a processing invocation description analyzing means for analyzing processing invocation descriptions;

rule separating means for separating, based on the parse tree generated by the analyzing means, ~~a rule~~ a plurality of rules embedded in the structured document from a document part to which the ~~rule is~~ rules are provided, retrieving the ~~rule~~ rules, and outputting error information upon detection of a syntax error of the ~~rule~~ rules;

an error notice document synthesizing means for synthesizing syntax errors of rules detected by the rule separating means for an error notice;

a processing invocation description synthesizing means for synthesizing the processing invocation descriptions and error notice for assessing an error notice page;

~~error notice document synthesizing means for inputting the error information to synthesize a document for error notice;~~

~~processing invocation description synthesizing means for synthesizing a document processing rule string based only on the rule embedded in the structured document, the processing rule description synthesizing means merging and sorting rules retrieved from the structured document to generate a document processing rule string for processing the structured document, and generating information about access to the error notice document;~~

~~processing invocation description analyzing means for interpreting a processing invocation description and retrieving the error notice document; and~~

holding means for holding the error notice document.

13. (Currently Amended) A processor-implemented structured document processing method for processing a structured document that is structurally represented and contains one or more document parts, the method comprising the steps of:

analyzing the structured document in which rules are embedded to generate a parse tree;

detecting syntax errors in the rules;

scanning the parse tree and separating the rules from a document part, to which the rule is provided, to retrieve the rules embedded in the structured document;

analyzing processing invocation descriptions;

synthesizing the syntax errors detected in the rules;

generating an error notice based on the synthesized syntax errors;

synthesizing the processing invocation descriptions and the error notice for accessing an error notice page;

merging and sorting the rules retrieved from the structured document to synthesize a document processing rule string, based only on the rules embedded in the structured document; and

executing the document processing rule string to synthesize a structured document.

14. (Currently Amended) A processor-implemented structured document processing method for processing a structured document that is structurally represented and contains one or more document parts, the structured document processing method comprising the steps of:

(a) analyzing a first structured document, in which ~~an extraction rule~~extraction rules specifying extraction of a document part ~~is~~are embedded, to generate a parse tree;

(b) analyzing a second structured document, in which a repetitive duplication rule specifying duplication of a document part by a given number of times or an insertion/substitution rule specifying insertion or substitution of a document part is embedded, and generating a parse tree;

(c) scanning the parse tree and separating the ~~rule~~rules from the document part, to which the ~~rule is~~rules are provided, to retrieve ~~an extraction rule~~the extraction rules are embedded in a first structured document and a repetitive duplication or insertion/substitution rule from a second structured document;

(d) merging and sorting the extraction ~~rule~~rules retrieved from the first structured document and the repetitive duplication rule and/or insertion/substitution rule retrieved from the second structured, and synthesizing a document processing rule string, based only on the extraction rule embedded in the first structured document and the repetitive duplication or insertion/substitution rule embedded in the second structured document;

(e) executing the document processing rule string and retrieving a first document part subject to the extraction ~~rule~~rules from the first structured document;

(f) executing the document processing rule string and repeatedly duplicating a document part subject to the repetitive duplication rule and a rule provided to the document part by a given number of times;

(g) executing the document processing rule string and inserting the first document part before or after a second document part subject to the insertion/substitution rule or substituting the first document part for the second document part; and

(h) outputting a parse tree obtained as a result of execution of the steps (e) to (g).